

Approved Supplemental Environmental Projects  
For  
The Santa Ana Regional Water Quality Control Board

	Project Title, Proponent/Contact Information	SEP \$ Requested/Total Project Cost	Project Completion Date	Project Description
<b><i>Items 1-27: Higher priority projects for SEP funding</i></b>				
1.	Perchlorate Well Head Treatment System. Cities of Colton, Rialto; Fontana Water Company and West San Bernardino County Water District (various contacts)	Unspecified costs	Ongoing	Funds would be distributed to the four entities for wellhead treatment of a plume of perchlorate-contaminated groundwater.
2.	Quail Valley Water Quality Improvement Project. Eastern Municipal Water District, 2270 Trumble Road, Perris, CA 92570 Jayne Joy (951-928-3777)	\$5 million for engineering and design/\$65 million total cost	5 years from the date of formation of a sewer assessment district	Septic systems in Quail Valley area are failing at an alarming rate adversely impacting public health and water quality. Eastern and other agencies are proposing to provide sewer service to the area to eliminate septic systems. The area has a significant number of low-income and/or fixed income families and the SEP money will lower the cost of providing sewer to the area.
3.	Alternative Storm Water Management Sub-regional BMP feasibility study. City of Corona, 815 W. 6 <sup>th</sup> Street, Corona, CA 91718 John Licata 909-736-2483	\$350,000	4 to 10 years from funding date	The money would be used for a feasibility study and EIR to examine the possibility of using the City's existing settlement ponds for dispersion of low-flow and non-storm water. If found feasible, the ponds would be converted to sub-regional treatment BMPs.
4.	Upper Newport Bay Restoration. Marine Education Project, 45	\$189K/\$250K The SEP money	September 2006	Marine Education Project is proposing a Community-Based Restoration and Education

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	Fremont St, Suite 2000, San Francisco, CA 94105 Chris Parry (415-904-5208) cparry@coastal.ca.gov	is to cover a portion of program expenses and personnel costs for 1 year. (\$12,000 from Robertson's Ready Mix ACL R8-2006-0044 sent on 6/12/06)		Program for Upper Newport Bay. The project will foster community involvement and volunteer labor for restoration activities (removal of invasive species, planting of native species, restoration of buffer zones for breeding and foraging, etc.) and for monitoring of the restored areas.
5.	OCWD Recharge Basin Restoration. Orange County Water District, 10500 Ellis Avenue, Fountain Valley, CA 92708 Virginia Grebbien (714-378-3220) Greg Woodside gwoodside@ocwd.com	\$100K/\$1,450K SEP request is for a portion of the capital cost. Funded \$100K from Robertson's Ready Mix ACL R8-2006-0044	20 months from the date of funding and approval by the District's Board	OCWD operates 20 recharge basins to recharge flows from the Santa Ana River. The SEP proposal is to purchase equipment needed to remove and process the accumulated sediment layer from these basins.
6.	Study Effectiveness of Selected BMPs in Erosion Control. San Diego State University, Soil Erosion Research Laboratory, 5500 Campanile Drive San Diego, CA 92182 Ed Beighley (619-594-2284) beighley@mail.sdsu.edu	\$88.22K/\$115.32K  Check for \$88.22K sent on 1/19/06	8/15/2008 (SEP for Empire Capital, R8-2005-0086)	The SEP proposal is to quantify the effectiveness of a selected group of erosion and sediment control BMPs and to quantify the sediment discharge potential during different phases of construction.
7.	Arlington Desalter Upgrade. Western Municipal Water District, 450 Alessandro Blvd., Riverside, CA 92517 <a href="mailto:mnorton@sawpa.org">mnorton@sawpa.org</a> (?)	Unspecified costs	2009	This project would upgrade the Arlington Desalter by adding a disinfection and detention storage unit so that potable water could be produced by the facility. This way the desalter could be operated even when the non-potable

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				water demand is low.
8.	Investigation of Contaminants in the Food Web of the Light-Footed Clapper Rail in the Upper Newport Bay. SCCWRP (same as 12)	\$33,000	2006	The project would investigate the effect of legacy pollutants in the food web of Light-Footed Clapper Rail.
9.	Natural Loadings Study at Two Upper Santa Ana River Reference Sites. SCCWRP (same as 12) <a href="mailto:kens@sccwrp.org">kens@sccwrp.org</a>	\$43,500 (funding provided through an ACL issued to Yucaipa VWD)	2005	The project would select two reference locations (not impacted by point sources or MS4 discharges) to determine natural water quality conditions.
10.	Santa Ana Watershed Regional Data Collection & Management Program. SAWPA/SARW Group, 11615 Sterling Avenue, Riverside, CA 92503 Mark Norton (951-354-4243)	\$170,000/\$170,000	Ongoing	The project when completed will provide a single-point repository and data management system for water quality data generated within the Santa Ana Watershed. The program would support planning and development activities.
11.	Native Fish Restoration Program for the Upper Santa Ana River Basin. Riverside-Corona Resource Conservation District, 4500 Glenwood Drive, #A, Riverside, CA 92501-3042 Kervin Russell 951-683-7691 X203; <a href="mailto:Russell@rcrcd.com">Russell@rcrcd.com</a>	\$97,498/\$146,247  \$97,498 provided from an ACL issued to Suncal, R8-2005-0099	Start: July 1, 2006 End: June 30, 2009  Final report due 7/09.	RCRCD will use the money for deployment and monitoring of native fish species in tributaries to the Santa Ana River. The native fish restoration project will increase the biodiversity and restore the biological and physical functions of streams in the upper Santa Ana watershed.
12.	Bight 03, Survey of Southern California Coastal Waters. SCCWRP, 7171 Fenwick Lane, Westminster, CA 92683 Ken Schiff, 714-894-2222 <a href="mailto:kes@sccwrp.org">kes@sccwrp.org</a>	\$200,000/\$2,000,000	Project Summer 2003; Rpt by the end of the year	This is a project to assess the overall condition of Southern California Coastal waters. A number of stakeholder groups support the program. The results of the study would be useful for retooling MS4 Programs and for evaluating other discharges to the ocean.

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13.	Hydromodification Map and Documentation for the Santa Ana River Watershed in SBC. San Bernardino County SW PGM, 825 E. 3 <sup>rd</sup> St., San Bernardino, CA 92415 Matt Yeager 909-387-8112 myeager@dpw.sbcounty.gov	\$200,000/\$600,000	Start Oct 2005  End in 5 years	San Bernardino County is proposing to develop a GIS-based map of the drainage channels in the Upper Santa Ana River Watershed within the County. The map will identify natural and improved channels, channel reaches and its susceptibility to erosion and sedimentation due to hydrologic changes.
14.	Natural & Treatment Wetlands. SAWPA (same as 26)	\$40,000,000 over five years	Project expected to be complete by 2008	Create and restore wetlands in all three counties to provide treatment for non-point source runoffs and habitat for sensitive, endangered and threatened species.
15.	San Jacinto Watershed Management Facilitation Services. SAWPA (same as 26)	\$100,000	2008	This project would provide funding for the services of s San Jacinto Watershed Coordinator to support the efforts of the San Jacinto Watershed Council to address water quality contaminants and impairments in Lake Elsinore.
16.	Conservation Program for the Chino/Prado Basins. SARW (same as 26)	\$250,000	20007	This program is focused on developing a plan for the utilization of the lower Chino/Prado Basin for wildlife habitat and recreation.
17.	Facilitation & Development of a One-Year Strategic Plan for the San Jacinto Watershed Council. San Jacinto Resource Conservation District, 950 N. Ramona Blvd., #6, San Jacinto, CA 92582 (951) 654-7733	\$120,000	2006	This project would provide funding for the first year of stakeholder meetings leading to the development of strategic plan for the San Jacinto Watershed Council.  Pat Boldt mpboldt@aol.com
18.	Kelp Reforestation in Coastal Waters of Orange County. California Coastkeeper Alliance,	\$18K/\$110K	09/01/2007	The SEP proposal is to augment funding shortage for a kelp restoration project along the Orange County coastal waters. This

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	820 Seaside Ave., Suite 108 Terminal Island, CA 90731 Nancy Caruso (310- 548-0983)			funding would provide fuel for the Coastkeeper Alliance's boat (used to transport volunteers out to dive), safety training and equipment for the volunteer divers and provide materials for the students and schools involved in the project.
19.	Dunlap Channel Urban Streams Project. The City of Yucaipa, 34272 Yucaipa Blvd., Yucaipa, CA 92399 Ray Casey 909-797-2489X253	\$150,000	Start during spring of 2007 and end spring 2008	The City is proposing to restore a natural channel including restoration of riparian habitat within Dunlap Channel. The SEP amount is to cover a portion of the construction costs.
20.	Santa Ana River Sucker Habitat Conservation Program. Orange County (w/US Fish & Wildlife), 300 N. Flower St., Santa Ana, CA 92702 Michael Wellborn (714) 834-2486	\$125,000	Ongoing	The project would provide funding for transporting and installing rocks suitable for the Sucker habitat along the River.
21.	Website Development and Implementation for the San Jacinto Watershed. Elsinore-Murrieta-Anza Resources Conservation District and San Jacinto Resource Conservation District, 950 N. Ramona Blvd., #6, San Jacinto, CA 92582 (951) 654-7733	\$15,000-\$20,000	2008	The project would provide public awareness and outreach to the community concerning San Jacinto Watershed activities through the use of internet-based resources.
22.	Study of Salt and Nitrate Problems in the San Jacinto Watershed. Western Riverside County Agricultural Coalition (WRCAC), 2160 Santa Anita Rd, Norco, CA	\$25K/\$40K (Funding provided by Joe Borba Dairy)	6/30/2006 Project completed	WRCAC is proposing to determine the sources of salts and nitrates in the San Jacinto watershed and identify alternatives to address the salt and nitrate problems in the watershed.

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	92860 Pat Boldt (951-808-8531)			mpboldt@aol.com
23.	Strategic Planning for San Jacinto Watershed. The San Jacinto River Watershed Council, 16485 Lash St, Lake Elsinore, CA 92530 Pat Boldt (951-808-8531)	\$10K/\$10K (SEP \$ provided by Yucaipa Valley Water District)	6/30/2005 (Project completed)	The SEP money was needed for strategic planning and monthly facilitation services to address water quality problems within the San Jacinto Watershed.  mpboldt@aol.com
24.	Water Education Center. Discovery Science Center, 2500 N. Main St, Santa Ana, CA 92705 Steve Kight (714-913-5015) <a href="mailto:jadams@discoverycube.org">jadams@discoverycube.org</a> <a href="mailto:skight@discoverycube.org">skight@discoverycube.org</a>	\$150K/\$3,500K The requested amount is for engineering design of a hands-on water education center.	One year from date of funding	The Discovery Science Center is a non-profit science education center. The SEP proposal is to build a comprehensive, hands-on water education center on how the public can help with water conservation and water quality improvements.
25.	Santa Ana Sucker Conservation. SAWPA/SARW (same as in 26)	\$10,000,000 A five-year project	2008	To make modifications to the Santa Ana River and its tributaries to remove barriers and provide refuge for fish.
26.	East Garden Grove-Wintersburg Channel Urban Runoff Diversion to Natural Treatment Systems in Huntington Beach Central Park. City of Huntington Beach, 2000 Main Street, Huntington Beach, CA 92648. Geraldine Lucas, 714-375-8494	\$500,000	July 2009	The project will divert approximately 3 million gallons per day of urban runoff from a large regional channel, the East Garden Grove-Wintersburg Channel, into the Huntington Beach Central Park for natural treatment and restoration of aquatic resources. The project would provide multiple benefits, including: the reduction in polluted runoff entering Bolsa Chica Wetlands, Huntington Harbour and Anaheim Bay; the restoration of aquatic resources in Central Park, including Talbert Lake, Huntington Lake, and Shipley Nature Center; enhancements to groundwater protection by reinforcing the sea-water

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				intrusion barrier; and educational opportunities.
27.	Huntington Harbour Water Quality Improvements. City of Huntington Beach, 2000 Main Street Huntington Beach, CA 92648. Geraldine Lucas 714-375-8494	\$500,000	July 2009	This project includes a number of improvement projects and activities as recommended by the Huntington Harbour Waterways Committee's Solutions & Recommendation Matrix. Some activities and projects identified in the matrix include: conducting an eelgrass study; targeted education and outreach to boaters, residents, and local businesses; supporting a "Harbor Watch Program"; and developing a boater live-aboard policy.
<b><u>Other Approved SEP Projects</u></b>				
28.	Arundo Removal. SAWPA, 11615 Sterling Avenue, Riverside, CA 92503 Mark Norton (951) 785-5411	\$55,000,000 over 10 yrs; \$25,000,000 already obtained from other sources	Started in 2000, expected to last 10 years	Arundo Donax is an invasive plant species. The funding is needed for its removal and monitoring from the Santa Ana Watershed.
29.	Environmental Restoration Program for the Park. San Jacinto Resource Conservation District, 950 N. Ramona Blvd., #6, San Jacinto, CA 92582 (951) 654-7733	Unspecified costs.	2009	The purpose of this effort is to restore the San Jacinto River Park to a viable park with local flora and fauna and watershed education and demonstrations.
30.	Buck Gully Diversion and Filtration. Orange County Coastkeeper (same as 12, above)	Unspecified costs	2006	To capture and filter dry weather urban runoff in Buck Gully, located in Corona del Mar. garry@coastkeeper.org
31.	Marine Studies Center on Shellmaker Island. City of Newport Beach, 3300	\$2,000,000/\$5,000,000	2009	The center would be designed to accommodate County water quality testing facilities, a water quality education center and

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	Newport Boulevard, CA 92658 Dave Kiff (949) 644-3131	Approx. \$3,000,000 funding commitments from other agencies		Department of Fish and Game offices.
32.	Chino Hills State Park Expansion. SAWPA (same as 26)	\$15,000,000	Depends on funding availability	The project will connect Prado Wetlands with Chino Hills State Park.
33.	Watershed Planning, Modeling and Stakeholder Outreach. SAWPA (same as 26)	\$6,000,000	Ongoing	The project will provide the tools for data collection and planning for multipurpose projects within the Santa Ana Watershed.
34.	Linear Parks and Buffer Open Space. SAWPA (same as 26)	\$10,000,000	5 years from full funding	The project would provide connectivity in habitat and to buffer the streams from non-point source pollution.
35.	Environmentally Friendly Demo Gardens. Orange County Coastkeeper, 441 Old Newport Blvd., Suite 103 Newport Beach, CA 92663 Garry Brown (949-723-5424) <a href="mailto:garry@coastkeeper.org">garry@coastkeeper.org</a> <a href="mailto:coastkeeper1@earthlink.net">coastkeeper1@earthlink.net</a>	\$170K/\$265K  \$9,000 provided from IRWD, ACL #R8-2004-0103	One year after funding	Coastkeeper is proposing to develop a series of environmentally friendly demonstration gardens that will educate the public how to conserve water and reduce run-off (through California friendly landscaping and emerging technologies). SEP money will be used for the first of these gardens to be located at Santiago Canyon College in the City of Orange. Other similar projects will be developed as temporary demonstration gardens within new development project sites.
36.	Santa Ana River Trail and Parkway Completion. SAWPA (same as 26)	\$40,000,000	5 years from full funding	Multi-Stakeholder project to connect the San Bernardino Mountains and the Pacific Crest Trail to the already completed portions of the Orange County Trail.
37.	Public Awareness and Education Activities.	Unspecified costs	Ongoing	To subsidize public awareness and education programs related to water quality improvement



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	UCR Extension Riverside, CA 92521-0112 Jon Kindschy (951) 787-5804			programs. <a href="mailto:Jon.kindschy@ucr.edu">Jon.kindschy@ucr.edu</a>
38.	Comprehensive Monitoring Program. OCC (same as 12, above)	Unspecified costs	Ongoing	OCC wishes to initiate a comprehensive monitoring program throughout Orange County to provide data for the Regional Board's Basin Plan and for enforcement purposes.
39.	Water Quality Construction Education Program. CICWQ, 2149 E. Garvy Avenue, Suite A-11, West Covina, CA 91791 Michael Lewis (626) 858-4611 mgrey@biasec.org	\$250,000	Ongoing	This program will join policy makers, municipal and regional board inspectors and industry employees in a multi-media effort to broaden the knowledge of performance expectations of the construction and building industries concerning storm water program implementation.
40.	Windows-on-Our Waters, Environmental Education Program. Environmental Education Program, 2515 Wilshire Blvd., Los Angeles, CA 90403 Gary Poe (310) 829-1229	\$925,000	Ongoing	This proposal is for a mobile ocean and traveling discovery center. The program is designed to reach 120,000 students in the Los Angeles School District annually. garypoe@windowsonourwaters.org
41.	Adopt-a-Watershed, Wade into Watersheds. Think Earth Environmental Education Foundation, 4031 Conejo Mesa St, Moorpark, CA 93021 Corinne Berenson 805-523-1040 cberenson@thinkearth.org	\$3,455/teacher	Ongoing	Think Earth Environmental Education Foundation is proposing to provide curriculum to 4 <sup>th</sup> and 5 <sup>th</sup> grade teachers. The teachers will then adopt a local watershed as a living laboratory to teach students the importance of water to all living things and the need to protect water resources.
42.	Development of an Internet-based Comprehensive Planning Model Dr. Irwin Haydock (714) 775-4415	\$80,000	2 years from funding	The project would develop a comprehensive planning model that could be used as a tool for problem solving activities concerning the coastal zone.

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43.	Oak Glen Creek (Wilson II) Detention/Desilting Basin. The City of Yucaipa (Same as 38)	\$100,000	January 2006- spring of 2008	The City is proposing to construct a natural treatment system within Wilson Creek. The SEP money will be used to develop and maintain a Quality Assurance Project Plan (QAPP) for monitoring the effectiveness of the natural treatment system.
44.	Endowment for a Chair in Water Quality Studies. Cal State San Bernardino, 5500 University Parkway, San Bernardino, CA92407 Susan Longville (909) 880-7681	Unspecified costs	Ongoing	The money would be used to establish an endowment account to create and support a "Chair in Water Quality Studies".  slongvil@csusb.edu
45.	Distribution of Creative non-point Source Pollution Prevention materials. The Water Education Foundation (WEF), 717 K Street, Suite 317, Sacramento, CA 95814. Katie Kolarich 916-444-6240 kkoarich@watereducation.org	\$5,000	Upon funding	WEF is proposing to use the SEP money to distribute non-point source publications and other materials to local stakeholders and the community.
46.	Coastkeeper Kelp Reforestation Project. Orange County Coastkeeper, 441 Old Newport Blvd., Suite 103, Newport Beach, CA 92663 Garry Brown (949) 723-5424	\$110,000/year an unspecified amount coming from NOAA	Ongoing	An ongoing effort to establish and foster kelp forests along Orange County coast.
47.	Arundo Removal/Habitat Restoration and Education Program. Riverside County Regional Park & Open Space District, 4600 Crestmore Rd., Riverside, CA 92509	\$20,000 (Funding provided from Bouma Dairy and Vermeer & Goedhart Dairy ACLs)	2001	\$14, 747.54 used for Arundo removal and \$3,800 for educational materials for the Nature Center. Balance of the funds used for additional herbicide purchase for Arundo removal.  (SEP project complete)

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	Paul Frandsen (951) 955-4310			
48.	Community Town Hall Meeting Facilitation. WEF (same as 44)	\$10,000	Upon funding	WEF is proposing to use SEP funding to facilitate a town hall meeting dealing with urban runoff and non-point source pollution prevention and to distribute appropriate materials to the participants.
49.	Train the Teachers on Water Education. WEF (same as 44)	\$15,000	Upon funding	Water Education for Teachers is a project where WEF trains elementary school teachers on the use of easy-to-use and fun activities to teach students on water quality issues. SEP money will be used to train teachers and facilitators.
50.	Hands-on Water Quality Testing Workshop for Educators. WEF (same as 44)	\$15,000	Upon funding	WEF is proposing use SEP money to train the educators on water quality testing techniques.
51.	Radio Minutes on Pollution Prevention WEF (same as 44)	\$20,000	Upon funding	WEF is proposing to use SEP money to produce a radio campaign aimed at pollution prevention.
52.	Stakeholder Education Seminar. WEF (same as 44)	\$25,000	Upon funding	The SEP money is to be used for a one-day seminar to provide information to stakeholders on water pollution from various sources.
53.	Video and DVD titled "Go with the Flow". WEF (same as 44)	\$35,000	Upon funding	The SEP money will be used to produce a 10-minute video for junior and high school students
54.	Update Layperson' Guide to Water Pollution. WEF (same as 44)	\$40,000	Upon funding	WEF is proposing to spend the SEP money on updating a 1996 guide to water pollution.
55.	Implement Ahwahnee Principles. WEF (same as 44)	\$45,000	Upon funding	WEF is proposing to use SEP money to develop and distribute a guide for low impact development.
56.	Update Layperson's Guide to Agricultural Drainage. WEF (same as 44)	\$45,000	Upon funding	The SEP money will be used to update a 2001 layperson's guide to agricultural drainage.
57.	One-day Regional Conference on	\$50,000	Upon	The SEP money will be used for expenses in

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	Water Pollution. WEF (same as 44)		funding	arranging a one-day seminar on point and non-point source pollution.
58.	Forecasting Coastal Water Quality w/ Real-time Sensor Webs. University of California, Irvine. Dr. Stanley Grant	\$70,000	December 2005. Final product will be a predictive model	The project proposes to link real-time ocean water monitoring data to existing water quality monitoring programs to create a real-time water quality-forecasting algorithm to predict beach water quality. This tool will be eventually used to inform/warn the public of the beach water quality conditions.
59.	Southern California Coastal Ocean Observing System (SCCOOS), Additional High Frequency Radar Stations. University of Southern California, Dr. Burton Jones	\$125,000	December 2005. Additional high frequency radar stations.	Approximately \$23 million of Proposition 40 money has been spent to install high frequency radar stations along Southern California coastal areas to monitor ocean current. Additional stations are needed to provide complete coverage for the Southern California coastal areas. Approximately \$250,000 is needed to install two additional radar stations to provide better coverage and resolution of the Southern California coast; half of this amount is requested from the Santa Ana Region and the other half from the Los Angeles Regional Board. Information gathered from this ocean observing system can be used to monitor ocean outfalls, urban runoff, and other plumes.
60.	Southern California Coastal Ocean Observing System (SCCOOS), Autonomous Vehicle for Monitoring Coastal Waters. University of Southern California, Dr. Burton Jones.	\$125,000	December 2005. Vehicles purchased for monitoring coastal	These vehicles are telemetering vehicles that can maintain a time series of spatial mapping in a coastal region. They are advantageous for mapping surface plumes such as runoff plumes because they are small (~2 meters length) and can sample right to the surface without perturbing the surface plume the way

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			waters.	that a boat can do. They can profile to depths of ~200 meters, so they are capable of mapping 3-dimensional features. The data gathered should be useful in predicting the impact of urban runoff and other discharge plumes on coastal water quality
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